REMARKS

Claims 1 and 2 have been amended to clarify that the viscosity modifier (B) includes a unit derived from the specified alkyl (meth)acrylate containing an epoxy group, the another alkyl (meth)acrylate and the another vinyl monomer copolymerizable therewith. The subject amendments do not narrow the scope of claims 1 and 2, and were made for clarification only.

Additionally, claim 1 has been amended to recite that the viscosity modifier (B) consists essentially of units (a), (b) and (c), and that the unit (c) derived from 0 to 92 % by weight of another vinyl monomer copolymerizable therewith excludes an α-olefin. Support is found, for example, by reference to Comparative Examples 13 and 14 of the specification, where the viscosity modifier (B) contained 82 % by weight and 72 % by weight, respectively, of an ethylene unit, which compositions were found to be inferior with respect to anti-draw down effect due to presence of the α-olefin unit as a main component.

New claims 6 and 7 find support, for example, at page 8, lines 13-16 and page 9, lines 6-10 of the present specification.

Review and reconsideration on the merits are requested.

Claims 1-5 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 6,447,913 to Watanabe et al. Watanabe et al. was cited as disclosing a thermoplastic polyester resin composition, including at least one impact resistance modifier (B) selected from various thermoplastic elastomers and core-shell polymers (column 3, line 34-column 8, line 25 and claim 1) meeting the terms of the rejected claims.

Applicants traverse, and respectfully request the Examiner to reconsider in view of the amendment to the claims and the following remarks.

(1) Claim Amendment Distinguishes over Watanabe et al:

The present invention relates to a thermoplastic polyester resin composition, comprising (A) thermoplastic polyester resin, (B) a viscosity modifier for a thermoplastic polyester resin consisting essentially of (a) a unit derived from alkyl (meth)acrylate containing an epoxy group, (b) a unit derived from another alkyl (meth)acrylate and (c) a unit derived from another vinyl monomer copolymerizable therewith excluding an α-olefin; and (C) a core-shell graft polymer.

Watanabe et al. relates to a thermoplastic polyester resin composition comprising (A) a thermoplastic polyester resin, (B) an impact resistance modifier, (C) a silicone compound or fluorine compound, (D) an inorganic filler and (E) a polyfunctional compound, which has excellent alkali resistance and anti-stress qualities (col. 1, lines 9 to 15). As an impact resistance modifier (B), various kinds of thermoplastic elastomers and a core-shell polymers are exemplified, and an olefin-based thermoplastic elastomer is disclosed as one such thermoplastic elastomer (Claim 1). Further, of these olefin elastomers, a graft copolymer, wherein (a-2) an olefinic copolymer prepared by α-olefins and glycidyl esters of α, β-unsaturated acids are chemically bonded with (b) polymers such as an acrylic polymer, aromatic vinyl polymer and vinyl cyanide polymer, is exemplified (col. 3, line 59 to col. 4, line 17).

The olefinic copolymer corresponds to viscosity modifier (B) of the present invention. The olefinic copolymer of Watanabe et al. has an olefin-based copolymer unit (a-1) or (a-2) as an essential component, which exhibits a remarkable effect by chemically bonding with component

(b). On the other hand, the viscosity modifier for a thermoplastic polymer resin (B) of amended Claim 1 of the present application consisting essentially of units (a), (b) and (c) excluding an α-olefin, is thus distinguished from Watanabe et al.

The transitional language "consisting essentially of" excludes those ingredients which materially affect the basic and novel characteristics of the claimed invention.

In this regard, Comparative Example 13 of the present specification discloses a viscosity modifier (B) containing 82 % by weight of an ethylene unit and 18 % by weight of a glycidyl methacrylate. Also, Comparative Example 14 discloses a viscosity modifier (B) containing 72 % by weight of an ethylene unit, 18 % by weight of a glycidyl methacrylate unit and 10 % by weight of vinyl acetate unit. These compositions correspond to the above-mentioned olefinic copolymer described in Watanabe et al., and were found to be inferior in terms of anti-draw down effect relative to the viscosity modifiers of the present invention. This is because the olefinic copolymer of Watanabe et al. has an α-olefin unit as a main component. The present invention exhibits the above excellent effect by not containing an α-olefin unit in the composition, thus patentably distinguishing over Watanabe et al.

(2) Separate Patentability of Claim 6:

Watanabe et al. describes that (a-2) an olefinic copolymer prepared by α-olefins and glycidyl esters of α, β-unsaturated acids consists of 70 to 99 % by weight of α-olefins and 30 to 1 % by weight of glycidyl esters of α, β-unsaturated acids, and also the ratio of (a-2) to (b) to compose the graft copolymers is suitably from 95:5 to 5:95 (col. 4, lines 49 to 51 and col. 5, lines 8 to 10). In view of this description, the ratio of the glycidyl esters of α, β-unsaturated acids in

the olefinic copolymer can be calculated to be 0.05 to 28.5 % by weight. Therefore, new claim 6 characterized in that the unit (a) is derived from 30 to 95 % by weight of alkyl (meth)acrylate containing an epoxy group further distinguishes over the olefinic copolymer of Watanabe et al. in this respect.

(3) Additional Distinctions over Watanabe et al.:

As described at page 8, lines 9 to 20 of the present specification, it is preferable to compound a relatively large amount of component (a) in view of increasing melt viscosity and providing stable processability of the polyester resin composition thus obtained. With respect to the results of Examples 1 to 13 of the present specification, the polyester resin compositions thus obtained exhibit an excellent anti-draw down effect and Izod impact strength in Examples 4 to 7 and 11 to 13. Therein, a ratio of glycidyl methacrylate in the viscosity modifier for the thermoplastic polyester resin is 40 to 90 % by weight. Such effects are not at all suggested by Watanabe et al.

Further, the present invention provides a significant advance in the art combining (B) a viscosity modifier for a thermoplastic polyester resin and (C) a core-shell graft polymer, and exhibits excellent properties both in increasing melt viscosity while molding and in imparting impact resistance, in a synergistic manner, as compared to compositions containing only either (B) a viscosity modifier or (C) a core-shell graft polymer (page 12, line 4 to page 13, line 1 of the present specification). In Comparative Examples 3 to 5, only one selected from the (B) and (C) components is compounded, and the compositions thus obtained are much inferior in anti-draw down effect and Izod impact strength.

On the other hand, Watanabe et al. only discloses various kinds of thermoplastic elastomers and a core-shell polymer as an impact resistance modifier (B). Particularly, Watanabe et al. does not specifically mention a thermoplastic elastomer and a core-shell polymer in combination, let alone, the effect obtainable from the combination. This is evident from the fact that only one selected from a thermoplastic elastomer and a core-shell polymer as an impact resistance modifier is used in all of the Examples of Watanabe et al.

Particularly, although claim 1 of Watanabe et al. may allow for both a thermoplastic elastomer and a core-shell polymer in a thermoplastic polyester resin, in all of the working examples, Watanabe et al. never used impact resistance modifiers (B1)-(B4) in combination. See Table 1 bridging columns 13-14 of Watanabe et al. That is, Watanabe et al. never contemplated the effect of the invention in use of a viscosity modifier and core-shell graft copolymer in combination for improving the performance of a thermoplastic polyester resin composition.

In view of the above amendment and foregoing remarks, it is respectfully submitted that the present claims are not anticipated by Watanabe et al. Particularly, the claimed thermoplastic polyester resin composition comprising viscosity modifier (B) consisting essentially of unit (a), unit (b) and unit (c) excluding an α-olefin, excludes the composition of Watanabe et al. utilizing an olefinic copolymer as an impact resistance modifier. Moreover, the present claims are not anticipated by Watanabe et al. which only discloses various kinds of thermoplastic elastomers and a core-shell polymer individually as an impact resistance modifier (B). Moreover, Watanabe et al. never contemplated the effect of the invention in combined use of a viscosity modifier and

core-shell graft copolymer as required by the present claims, and for this additional reason the present invention is patentable over Watanabe et al.

Withdrawal of all rejections and allowance of claims 1-7 is earnestly solicited.

In the event that the Examiner believes that it may be helpful to advance the prosecution of this application, the Examiner is invited to contact the undersigned at the local Washington, D.C. telephone number indicated below.

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23373
CUSTOMER NUMBER

Date: February 2, 2006